

REMARKS

Claims 41-49 have been canceled without prejudice or disclaimer. Claims 50-69 have been added and therefore are pending in the present application. Claims 50-69 are supported throughout the specification, including the original claims.

The specification has been amended to correct typographical errors.

It is respectfully submitted that the present amendment presents no new issues or new matter and places this case in condition for allowance. Reconsideration of the application in view of the above amendments and the following remarks is requested.

I. The Objections to the Claims

The Office objected to claims 41, 46 and 47 due to informalities. Specifically, the Office objected to: (1) a typographical error in claim 41, (2) the term "trans-2-nonenal" for not being used consistently in the specification; and (3) claims 46 and 47 as being improper dependent claims.

Claims 41-49 have been rewritten as claims 50-69 to address the objections. Applicants therefore submit that the first and second objections have been overcome.

The third objection is respectfully traversed. The Office stated that the "wherein" clause recited in claims 46 and 47 are not given weight because they express the intended result of a process step positively recited and are not material to patentability. Applicants submit that the Office is incorrect. The wherein clauses recited in claims 46 and 47 (now claims 68 and 69) are material to patentability to these claims. Thus, claims 46 and 47 are proper dependent claims.

II. The Rejection of Claims 41-49 under 35 U.S.C. 112

Claims 41-49 are rejected under 35 U.S.C. 112 as being indefinite. Claims 41-49 have been rewritten as claims 50-69 to address most of the grounds of the rejection.

Two grounds are respectfully traversed. The Office objected to the recitations "the concentration of dimethyl sulfide" and "the concentration of trans-2-nonenal" recited in claims 46 and 47, respectively. This is respectfully traversed.

Since the compounds dimethyl sulfide and trans-2-nonenal will be present at a single concentration in the wort, it is proper to use the term "the" prior to "concentration" in these claims.

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 112. Applicants respectfully request reconsideration and withdrawal of the rejection.

III. The Rejection of Claims 41-49 under 35 U.S.C. 103

Claims 41-49 are rejected under 35 U.S.C. 103 as being unpatentable over Witt (U.S. Patent No. 4,788,066). This rejection is respectfully traversed.

Witt discloses a process for producing low alcohol beer comprising mashing a barley malt with an alpha-amylase, adding a cellulase, and mashing for an additional period at a temperature of 78-80°C. After mashing, the wort is separated from the mash and fermented with yeast.

However, Witt does not teach or suggest a process for producing beer comprising mashing a barley malt and an adjunct, as claimed herein. Applicants' process is able to use a large amount of adjunct due to the use of exogenous enzymes. Thus, Applicants' process saves a significant amount of money for raw materials.

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 103. Applicants respectfully request reconsideration and withdrawal of the rejection.

IV. The Rejection of Claims 41-44 and 46-69 under 35 U.S.C. 103

Claims 41-44 and 46-49 are rejected under 35 U.S.C. 103 as being unpatentable in view of Walmsley et al. (U.S. Patent No. 3,716,365). This rejection is respectfully traversed.

Walmsley et al. disclose a process for making brewers' wort comprising forming a mash, heating the mash to between about 40-55°C for a period of 30-120 minutes, followed by heating the mash to between about 60-80°C to bring about solubilization and saccharification of the starch-containing material. Walmsley et al. further disclose that the process preferably includes the addition of a cereal adjunct.

However, Walmsley et al. do not teach or suggest a process for production of a beer, comprising forming a mash comprising barley malt and an adjunct and attaining within 15 minutes of the formation of the mash, an initial incubation temperature of at least 70°C.

As explained in the specification, by attaining a high temperature after the formation of mash, Applicants' process ensures that the endogenous enzymes of the barley malt and adjunct are significantly reduced or eliminated. Thus, the exogenous enzymes will constitute the large majority of enzyme activity. Applicants' process eliminates unwanted endogenous enzyme activities, such as lipoxygenase, while maintaining the positive characteristics of the barley malt and adjunct. The beer produced by Applicants' process therefore has a much greater quality than prior art beer.

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 103. Applicants respectfully request reconsideration and withdrawal of the rejection.

V. Conclusion

In view of the above, it is respectfully submitted that all claims are in condition for allowance. Early action to that end is respectfully requested. The Examiner is hereby invited to contact the undersigned by telephone if there are any questions concerning this amendment or application.

Respectfully submitted,

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